

Serial No. **09/637,698**

Docket No. **HI-0006**

Amdt. dated April 3, 2006

Reply to Office Action of December 1, 2005

REMARKS

By the present response, Applicants have canceled claim 19 without disclaimer. Further, Applicants have submitted new claim 25 for consideration by the Examiner and submit that this claim does not contain any prohibited new matter. Applicants have amended claims 1, 4 and 7 to further clarify the invention. Claims 1-12, 14-18 and 20-25 remain pending in the present application. Reconsideration and withdrawal of the outstanding rejections and allowance of the present application are respectfully requested in view of the above amendments and the following remarks.

In the Office Action, claims 1-3, 14, 15, 19-21 and 24 have been rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,339,646 (Dahlman et al.) in view of U.S. Patent No. 6,738,411 (Ogawa et al.). Claims 4-12, 22 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahlman et al. in view of U.S. Patent No. 6,141,374 (Burns) and further in view of Ogawa et al. Claims 17 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahlman et al. in view of Ogawa et al. and further in view of TSGR1#6(99)915, "TSSG-RAN Working Group 1 meeting #5, Helsinki, Finland, July 13-16, 1999 (TSGR). Claims 4-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over TSGR in view of Ogawa et al. Claim 16 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

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Allowable Subject Matter

Applicants thank the Examiner for indicating that claim 16 contains allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

35 U.S.C. § 103 Rejections

Claims 1-3, 14, 15, 19-21 and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahlman et al. in view of Ogawa et al. Applicants have canceled claim 19 therefore rendering this rejection moot. Applicants respectfully traverse these rejections as to the remaining pending claims.

Regarding claims 1 and 14, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of these claims of, *inter alia*, setting an initial value of a scrambling code generator to a binary value of "n" when a n-th one of the plurality of primary scrambling codes is to be generated from the scrambling code generator to generate a desired primary scrambling code, or setting an initial value of the scrambling code generator with a value obtained by shifting the n-th primary scrambling code by m times to generate a secondary scrambling code.

The Examiner asserts that Dahlman et al. discloses setting an initial value of a scrambling code generator to a binary value of "n" when a n-th one of the plurality of primary scrambling codes is to be generated from the scrambling code generator to generate a desired primary

scrambling code, at col. 4, line 64 – col. 5, line 9. However, these portions of Dahlman et al. merely disclose setting the start values into the shift register with an arbitrary binary number without having a predetermined method. Accordingly, in Dahlman et al. the set values for a primary scrambling codes are same. In contrast, the limitations in the claims of the present invention relate to differently setting the initial values in the register for the primary scrambling codes with a binary value corresponding to the n-th primary scrambling codes of the plurality primary scrambling codes 512 (see, Applicants' Figs 7 and 8, and page 17, lines 15 to page 19, line 3).

The Examiner admits that Dahlman does not disclose or suggest shifting the n-th primary scrambling code by m times to generate a secondary scrambling code, but asserts that Ogawa et al. disclose these limitations at col. 7, line 37- col. 10, and fig. 5. However, these portions merely disclose details of plural code series generators shown in figures 5 and 6 where each comprises a gold code series generator that generates a plurality of different spread codes simultaneously. This is not setting an initial value of the scrambling code generator with a value obtained by shifting the n-th primary scrambling code by m times to generate a secondary scrambling code, as recited in the claims of the present application. Ogawa merely discloses a gold code series generator that includes an m series generator 31 and a second m series generator 32 to generate multiple spreading codes from the outputs of exclusive OR devices x1-x3. These portions do

not disclose or suggest shifting the n-th primary scrambling code by m times to generate a secondary scrambling code.

Ogawa et al. discloses that the plural code series, not the primary/secondary respectively. Ogawa et al. just generates the plural code series corresponding to the secondary scrambling codes of the present invention as judging in Ogawa et al., Figs 5 and 6. According to the limitations in the claims of the present invention, the secondary scrambling codes are generated by combining the second register output and the masking output.

Thus, none of the cited references, taken alone or in combination disclose or suggest when an n-th one of the primary scrambling codes is to be generated from a generator adapted to generate the scrambling codes, setting an initial value of the scrambling code generator with a binary value of “n”, thereby generating a desired primary scrambling code, and when an n-th one of the secondary scrambling codes in an m-th one of the secondary scrambling code sets is to be generated from the scrambling code generator, setting the initial value of the scrambling code generator with a value obtained by shifting the n-th primary scrambling code by m times, thereby generating a desired secondary scrambling code.

Regarding claims 2, 3, 15, 20, 21, 24 and new claim 25, Applicant submits that these claims are dependent on one of independent claims 1 and 14 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims.

Accordingly, Applicants submit that none of the cited references taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of claims 1-3, 14, 15, 20-21 and 24 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 4-12, 22 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahlmna et al. in view of Burns and further in view of Ogawa et al. Applicants respectfully traverse these rejections.

Regarding claims 4 and 7, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of these claims of, *inter alia*, a masking function unit, which receives respective outputs from the first shift register, and performs a masking function for the received data to output data for the generation of the secondary scrambling code, or wherein the primary scrambling code is generated by performing a binary addition of the output from the second shift register to an output from the first shift register, and the secondary scrambling code is generated by performing a binary addition of the output from the masking function unit to the output from the second shift register, or wherein an initial value of an n-th secondary scrambling code of an m-th secondary scrambling code set is generated using a value obtained after shifting an n-th primary scrambling code by m times.

The Examiner admits that neither Dahlman et al. nor Burns disclose or suggest where an initial value of an n-th secondary scrambling code of an m-th secondary scrambling code set is generated using a value obtained after shifting an n-th primary scrambling code by m times, but asserts that Ogawa et al. discloses these limitations in col. 7, lines 37- col. 10 and fig. 5. However, as noted previously, these portions of Ogawa et al. do not disclose or suggest generating an initial value of a secondary scrambling code by shifting an n-th primary scrambling code. Ogawa et al. merely discloses generating a plurality of different spread codes using a gold code series generator that performs an exclusive OR of outputs from a plurality of shift stages of an m-series generator.

As noted previously, Ogawa et al. discloses that the plural code series, not the primary/secondary respectively. Ogawa et al. just generates the plural code series corresponding to the secondary scrambling codes of the present invention as judging in Ogawa et al., Figs 5 and 6. According to the limitations in the claims of the present invention, the secondary scrambling codes are generated by combining the second register output and the masking output.

Regarding claims 6, 8-12, 22 and 23, Applicants submit that these claims are dependent on one of independent claims 4 and 7 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of

each of claims 4-12, 22 and 23 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 17 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahlman et al. in view of Ogawa et al. and further in view of TSGR. Applicants respectfully traverse these rejections and submit that these claims are dependent on independent claim 14 and, therefore, are patentable at least for the same reasons noted previously regarding this independent claim.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of claims 17 and 18 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 4-12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over TSGR in view of Ogawa et al. Applicants respectfully traverse these rejections.

Regarding claims 4 and 7, as noted previously, none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of these claims of, *inter alia*, where an initial value of an n-th secondary scrambling code of an m-th secondary scrambling code set is generated using a value obtained after shifting an n-th primary scrambling code by m times. The Examiner admits that TSGR does not disclose or suggest these limitations but asserts that Ogawa et al. discloses these

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limitations. However, as has been previously noted, Ogawa et al. does not disclose or suggest an initial value of an n-th secondary scrambling code of an m-th secondary scrambling code set being generated using a value obtained after shifting an n-th primary scrambling code by m times, as recited in the claims of the present application.

Regarding claims 5, 6 and 8-12, Applicants submit that these claims are dependent on one of independent claims 4 and 7 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of claims 4-12 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

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CONCLUSION

In view of the forgoing Amendments and remarks, Applicants submit that claims 1-12, 14-18 and 20-25 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Frederick D. Bailey, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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